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Fig. 1A
SEQ. ID NO:1

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PTRLNSASLKQPYITQNYFPVGTVVEYECRPGYRREPSLSPKLTCLQNLK  150
WSTAVEFCKKKSCPNPGEIRNGQIDVPGGILFGATISFSCNTGYKLFGST  200
SSFCLISGSSVQWSDPLPECREIYCPAPPQIDNGIIQGERDHYGYRQSVT  250
YACNKGFTMIGEHSIYCTVNNDEGEWSGPPPECRGKSLTSKVPPTVQKPT  300
TVNVPTTEVSPTSQKTTTKTTTPNAQATRSTPVSRTTKHFHETTPNKGSG  350
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Fig. 1B
SEQ. ID NO:2

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 661 cgacttctag tttttgtctt atttcaggca gctctgtcca gtggagtgac ccgttgccag
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 841 tgattggaga gcactctatt tattgtactg tgaataatga tgaaggagag tggagtggcc
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 961 ctaccacagt aaatgttcca actacagaag tctcaccaac ttctcagaaa accaccacaa
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1441 tgagagtgat tcctttccta aaagtgtaag aaagcataga gatttgttcg tatttagaat
1501 gggatcacga ggaaaagaga aggaaagtga ttttttccca caagatctgt aatgttattt
1561 ccacttataa aggaaataaa aaatgaaaaa cattatttgg atatcaaaag caaataaaaa
1621 cccaattcag tctcttctaa gcaaaattgc taaagagaga tgaaccacat tataaagtaa
1681 tctttggctg taaggcattt tcatctttcc ttcgggttgg caaaatattt taaaggtaaa
1741 acatgctggt gaaccagggg tgttgatggt gataagggag gaatatagaa tgaaagactg
1801 aatcttcctt tgttgcacaa atagagtttg gaaaaagcct gtgaaaggtg tctttctttga
1861 cttaatgtct ttaaaagtat ccagagatac tacaatatta acataagaaa agattatata
1921 ttatttctga atcgagatgt ccatagtcaa atttgtaaat cttattcttt tgtaatattt
1981 atttatattt atttatgaca gtgaacattc tgattttaca tgtaaaacaa gaaaagttga
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2101 gt
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Fig. 2

SEQ. ID NO:3

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KDRCRRKSCRNPPDPVNGMVHVIKGIQFGSQIKYSCTKGYRLIGSSSATC  150
IISGDTVIWDNETPICDRIPCGLPPTITNGDFISTNRENFHYGSVVTYRC  200
NPGSGGRKVFELVGEPSIYCTSNDDQVGIWSGPAPQCIIPNKCTPPNVEN  250
GILVSDNRSLFSLNEVVEFRCQPGFVMKGPRRVKCQALNKWEPELPSCSR  300
VCQPPPDVLHAERTQRDKDNFSPGQEVFYSCEPGYDLRGAASMRCTPQGD  350
WSPAAPTCEVKSCDDFMGQLLNGRVLFPVNLQLGAKVDFVCDEGFQLKGS  400
SASYCVLAGMESLWNSSVPVCEQIFCPSPPVIPNGRHTGKPLEVFPFGKA  450
VNYTCDPHPDRGTSFDLIGESTIRCTSDPQGNGVWSSPAPRCGILGHCQA  500
PDHFLFAKLKTQTNASDFPIGTSLKYECRPEYYGRPFSITCLDNLVWSSP  550
KDVCKRKSCKTPPDPVNGMVHVITDIQVGSRINYSCTTGHRLIGHSSAEC  600
ILSGNAAHWSTKPPICQRIPCGLPPTIANGDFISTNRENFHYGSVVTYRC  650
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GILVSDNRSLFSLNEVVEFRCQPGFVMKGPRRVKCQALNKWEPELPSCSR  750
VCQPPPDVLHAERTQRDKDNFSPGQEVFYSCEPGYDLRGAASMRCTPQGD  800
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PDHFLFAKLKTQTNASDFPIGTSLKYECRPEYYGRPFSITCLDNLVWSSP 1000
KDVCKRKSCKTPPDPVNGMVHVITDIQVGSRINYSCTTGHRLIGHSSAEC 1050
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GSPWSQCQADDRWDPPLAKCTSRAHDALIVGTLSGTIFFILLIIFLSWII 2000
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Fig. 3
SEQ. ID NO:4

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Fig. 4A
SEQ. ID NO:5

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Fig. 4B
SEQ. ID NO:6

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1381 agattgcctg ctttccctta aataacactt agatttattg gaccagtcag cacagcatgc
1441 ctggttgtat taaagcaggg atatgctgta ttttataaaa ttggcaaaat tagagaaata
1501 tagttcacaa tgaaattata ttttctttgt
```

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Fig. 5

Fig. 6A
SEQ. ID NO:7
ATA TAC GAA TTC AGA TCT ATG ACC GTC GCG CGG CCG AGC GTG

Fig. 6B
SEQ. ID NO:8
ACA GTG CTC GAG CAT TCA GGT GGT GGG CCA CTC CA

Fig 7A
SEQ. ID NO:9
ATA TAC CTC GAG TCC TAA CAA ATG CAC GCC TCC AAA TGT GG-3

Fig 7B
SEQ. ID NO:10
ACA GTG ATG CAT TGG TTT GGG TTT TCA ACT TGG C

Fig 7C
SEQ. ID NO:11
ATA TAC ATG CAT CTG ACT TTC CCA TTG GGA CAT CTT TAA AG

Fig 7D
SEQ. ID NO:12
ACA GTG AGA TCT TTA GTG ATG GTG ATG GTG ATG AAT TCC ACA GCG AGG GGC AGG GCT

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Fig. 8A
SEQ ID NO:13

							M	T	V	A	R	P	S	V	P	A	A	L	P	
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D	C	G	L	P	P	D	V	P	N	A	Q	P	A	L	E	G	R	T	S	F
P	E	D	T	V	I	T	Y	K	C	E	E	S	F	V	K	I	P	G	E	K
D	S	V	I	C	L	K	G	S	Q	W	S	D	I	E	E	F	C	N	R	S
C	E	V	P	T	R	L	N	S	A	S	L	K	Q	P	Y	I	T	Q	N	Y
F	P	V	G	T	V	V	E	Y	E	C	R	P	G	Y	R	R	E	P	S	L
S	P	K	L	T	C	L	Q	N	L	K	W	S	T	A	V	E	F	C	K	K
K	S	C	P	N	P	G	E	I	R	N	G	Q	I	D	V	P	G	G	I	L
F	G	A	T	I	S	F	S	C	N	T	G	Y	K	L	F	G	S	T	S	S
F	C	L	I	S	G	S	S	V	Q	W	S	D	P	L	P	E	C	R	E	I
Y	C	P	A	P	P	Q	I	D	N	G	I	I	Q	G	E	R	D	H	Y	G
Y	R	Q	S	V	T	Y	A	C	N	K	G	F	T	M	I	G	E	H	S	I
Y	C	T	V	N	N	D	E	G	E	W	S	G	P	P	P	E	C			
S	S	P	N	K	C	T	P	P	N	V	E	N	G	I	L	V	S	D	N	
R	S	L	F	S	L	N	E	V	V	E	F	R	C	Q	P	G	F	V	M	
K	G	P	R	R	V	K	C	Q	A	L	N	K	W	E	P	E	L	P	S	
C	S	R	V	C	Q	P	P	P	D	V	L	H	A	E	R	T	Q	R	D	
K	D	N	F	S	P	G	Q	E	V	F	Y	S	C	E	P	G	Y	D	L	
R	G	A	A	S	M	R	C	T	P	Q	G	D	W	S	P	A	A	P	T	
C	E	V	K	S	C	D	D	F	M	G	Q	L	L	N	G	R	V	L	F	
P	V	N	L	Q	L	G	A	K	V	D	F	V	C	D	E	G	F	Q	L	
K	G	S	S	A	S	Y	C	V	L	A	G	M	E	S	L	W	N	S	S	
V	P	V	C	E	Q	I	F	C	P	S	P	P	V	I	P	N	G	R	H	
T	G	K	P	L	E	V	F	P	F	G	K	A	V	N	Y	T	C	D	P	
H	P	D	R	G	T	S	F	D	L	I	G	E	S	T	I	R	C	T	S	
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C	Q	A	P	D	H	F	L	F	A	K	L	K	T	Q	T	N	A	S	D	
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A	E	C	I	L	S	G	N	A	A	H	W	S	T	K	P	P	I	C	Q	
R	I	P	C	G	L	P	P	T	I	A	N	G	D	F	I	S	T	N	R	
E	N	F	H	Y	G	S	V	V	T	Y	R	C	N	P	G	S	G	G	R	
K	V	F	E	L	V	G	E	P	S	I	Y	C	T	S	N	D	D	Q	V	
G	I	W	S	G	P	A	P	Q	C	I	I	P	N	K	C	T	P	P	N	
V	E	N	G	I	L	V	S	D	N	R	S	L	F	S	L	N	E	V	V	
E	F	R	C	Q	P	G	F	V	M	K	G	P	R	R	V	K	C	Q	A	
L	N	K	W	E	P	E	L	P	S	C	S	R	V	C	Q	P	P	P	D	
V	L	H	A	E	R	T	Q	R	D	K	D	N	F	S	P	G	Q	E	V	
F	Y	S	C	E	P	G	Y	D	L	R	G	A	A	S	M	R	C	T	P	
Q	G	D	W	S	P	A	A	P	T	C	E	V	K	S	C	D	D	F	M	
G	Q	L	L	N	G	R	V	L	F	P	V	N	L	Q	L	G	A	K	V	
D	F	V	C	D	E	G	F	Q	L	K	G	S	S	A	S	Y	C	V	L	
A	G	M	E	S	L	W	N	S	S	V	P	V	C	E	Q	I	F	C	P	
S	P	P	V	I	P	N	G	R	H	T	G	K	P	L	E	V	F	P	F	
G	K	A	V	N	Y	T	C	D	P	H	P	D	R	G	T	S	F	D	L	

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I G E S T I R C T S D P Q G N G V W S S
P A P R C G I H H H H H H

Fig. 8B
SEQ. ID NO: 14

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CCCGAGGATACTGTAATAACGTACAAATGTGAAGAAAGCTTTGTGAAAATTCCTGGCGAGAAG
GACTCAGTGATCTGCCTTAAGGGCAGTCAATGGTCAGATATTGAAGAGTTCTGCAATCGTAGC
TGCGAGGTGCCAACAAGGCTAAATTCTGCATCCCTCAAACAGCCTTATATCACTCAGAATTAT
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AGAGGGGCTGCGTCTATGCGCTGCACACCCCAGGGAGACTGGAGCCCTGCAGCCCCCACA
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TCTATCACATGTCTAGATAACCTGGTCTGGTCAAGTCCCAAAGATGTCTGTAAACGTAAA
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GCTGAATGTATCCTCTCGGGCAATGCTGCCCATTGGAGCACGAAGCCGCCAATTTGTCAA
CGAATTCCTTGTGGGCTACCCCCCACCATCGCCAATGGAGATTTCATTAGCACCAACAGA
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GATTTTGTTTGTGATGAAGGATTTCAATTAAAAGGCAGCTCTGCTAGTTATTGTGTCTTG
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AGTCCTCCAGTTATTCCTAATGGGAGACACACAGGAAAACCTCTGGAAGTCTTTCCCTTT
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Fig. 9A
SEQ ID NO:15

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D	C	G	L	P	P	D	V	P	N	A	Q	P	A	L	E	G	R	T	S	F
P	E	D	T	V	I	T	Y	K	C	E	E	S	F	V	K	I	P	G	E	K
D	S	V	I	C	L	K	G	S	Q	W	S	D	I	E	E	F	C	N	R	S
C	E	V	P	T	R	L	N	S	A	S	L	K	Q	P	Y	I	T	Q	N	Y
F	P	V	G	T	V	V	E	Y	E	C	R	P	G	Y	R	R	E	P	S	L
S	P	K	L	T	C	L	Q	N	L	K	W	S	T	A	V	E	F	C	K	K
K	S	C	P	N	P	G	E	I	R	N	G	Q	I	D	V	P	G	G	I	L
F	G	A	T	I	S	F	S	C	N	T	G	Y	K	L	F	G	S	T	S	S
F	C	L	I	S	G	S	S	V	Q	W	S	D	P	L	P	E	C	R	E	I
Y	C	P	A	P	P	Q	I	D	N	G	I	I	Q	G	E	R	D	H	Y	G
Y	R	Q	S	V	T	Y	A	C	N	K	G	F	T	M	I	G	E	H	S	I
Y	C	T	V	N	N	D	E	G	E	W	S	G	P	P	P	E	C			
S	S	P	N	K	C	T	P	P	N	V	E	N	G	I	L	V	S	D	N	
R	S	L	F	S	L	N	E	V	V	E	F	R	C	Q	P	G	F	V	M	
K	G	P	R	R	V	K	C	Q	A	L	N	K	W	E	P	E	L	P	S	
C	S	R	V	C	Q	P	P	P	D	V	L	H	A	E	R	T	Q	R	D	
K	D	N	F	S	P	G	Q	E	V	F	Y	S	C	E	P	G	Y	D	L	
R	G	A	A	S	M	R	C	T	P	Q	G	D	W	S	P	A	A	P	T	
C	E	V	K	S	C	D	D	F	M	G	Q	L	L	N	G	R	V	L	F	
P	V	N	L	Q	L	G	A	K	V	D	F	V	C	D	E	G	F	Q	L	
K	G	S	S	A	S	Y	C	V	L	A	G	M	E	S	L	W	N	S	S	
V	P	V	C	E	Q	I	F	C	P	S	P	P	V	I	P	N	G	R	H	
T	G	K	P	L	E	V	F	P	F	G	K	A	V	N	Y	T	C	D	P	
H	P	D	R	G	T	S	F	D	L	I	G	E	S	T	I	R	C	T	S	
D	P	Q	G	N	G	V	W	S	S	P	A	P	R	C	G	I	L	G	H	
C	Q	A	P	D	H	F	L	F	A	K	L	K	T	Q	T	N	A	S	D	
F	P	I	G	T	S	L	K	Y	E	C	R	P	E	Y	Y	G	R	P	F	
S	I	T	C	L	D	N	L	V	W	S	S	P	K	D	V	C	K	R	K	
S	C	K	T	P	P	D	P	V	N	G	M	V	H	V	I	T	D	I	Q	
V	G	S	R	I	N	Y	S	C	T	T	G	H	R	L	I	G	H	S	S	
A	E	C	I	L	S	G	N	A	A	H	W	S	T	K	P	P	I	C	Q	
R	I	P	C	G	L	P	P	T	I	A	N	G	D	F	I	S	T	N	R	
E	N	F	H	Y	G	S	V	V	T	Y	R	C	N	P	G	S	G	G	R	
K	V	F	E	L	V	G	E	P	S	I	Y	C	T	S	N	D	D	Q	V	
G	I	W	S	G	P	A	P	Q	C	I	I	P	N	K	C	T	P	P	N	

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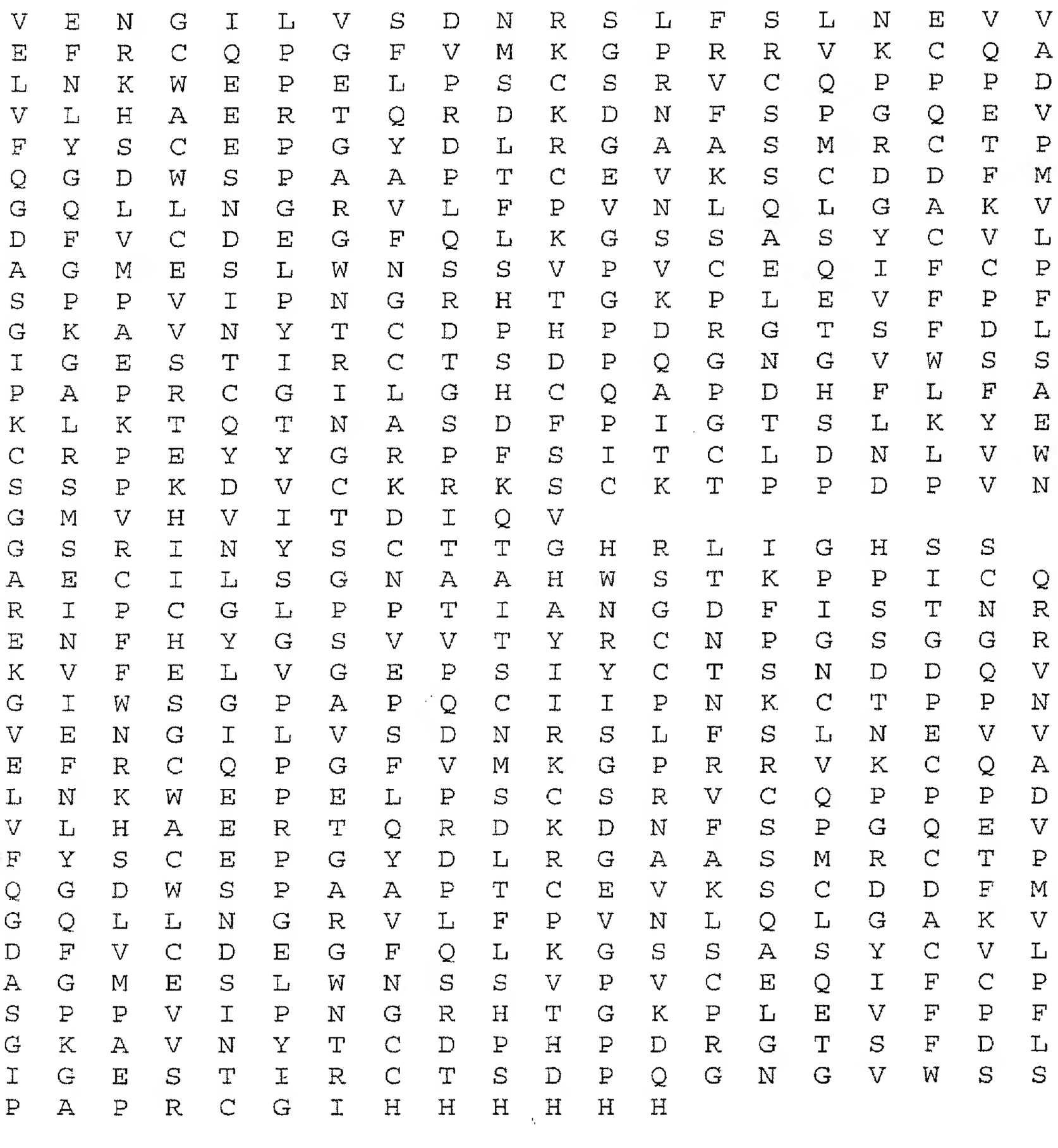

Fig 9B
SEQ. ID NO:16

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CCCGAGGATACTGTAATAACGTACAAATGTGAAGAAAGCTTTGTGAAAATTCCTGGCGAGAAG
GACTCAGTGATCTGCCTTAAGGGCAGTCAATGGTCAGATATTGAAGAGTTCTGCAATCGTAGC
TGCGAGGTGCCAACAAGGCTAAATTCTGCATCCCTCAAACAGCCTTATATCACTCAGAATTAT
TTTCCAGTCGGTACTGTTGTGGAATATGAGTGCCGTCCAGGTTACAGAAGAGAACCTTCTCTA

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TTTGGTGCAACCATCTCCTTCTCATGTAACACAGGGTACAAATTATTTGGCTCGACTTCTAGT
TTTTGTCTTATTTCAGGCAGCTCTGTCCAGTGGAGTGACCCGTTGCCAGAGTGCAGAGAAATT
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TCTATCACATGTCTAGATAACCTGGTCTGGTCAAGTCCCAAAGATGTCTGTAAACGTAAA
TCATGTAAAACTCCTCCAGATCCAGTGAATGGCATGGTGCATGTGATCACAGACATCCAG
GTTGGATCCAGAATCAACTATTCTTGTACTACAGGGCACCGACTCATTGGTCACTCATCT
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GTCCTGCATGCTGAGCGTACCCAAAGGGACAAGGACAACTTTTCACCCGGGCAGGAAGTG
TTCTACAGCTGTGAGCCCGGCTATGACCTCAGAGGGGCTGCGTCTATGCGCTGCACACCC
CAGGGAGACTGGAGCCCTGCAGCCCCCACATGTGAAGTGAAATCCTGTGATGACTTCATG
GGCCAACTTCTTAATGGCCGTGTGCTATTTCCAGTAAATCTCCAGCTTGGAGCAAAAGTG
GATTTTGTTTGTGATGAAGGATTTCAATTAAAAGGCAGCTCTGCTAGTTATTGTGTCTTG
GCTGGAATGGAAAGCCTTTGGAATAGCAGTGTTCCAGTGTGTGAACAAATCTTTTGTCCA
AGTCCTCCAGTTATTCCTAATGGGAGACACACAGGAAAACCTCTGGAAGTCTTTCCCTTT
GGAAAAGCAGTAAATTACACATGCGACCCCCACCCAGACAGAGGGACGAGCTTCGACCTC
ATTGGAGAGAGCACCATCCGCTGCACAAGTGACCCTCAAGGGAATGGGGTTTGGAGCAGC
CCTGCCCCTCGCTGTGGAATTCTGGGTCACTGTCAAGCCCCAGATCATTTTCTGTTTGCC
AAGTTGAAAACCCAAACCAATGCATCTGACTTTCCCATTGGGACATCTTTAAAGTACGAA
TGCCGTCCTGAGTACTACGGGAGGCCATTCTCTATCACATGTCTAGATAACCTGGTCTGG
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GGCATGGTGCATGTGATCACAGACATCCAGGTT
GGATCCAGAATCAACTATTCTTGTACTACAGGGCACCGACTCATTGGTCACTCATCT
GCTGAATGTATCCTCTCGGGCAATGCTGCCCATTGGAGCACGAAGCCGCCAATTTGTCAA
CGAATTCCTTGTGGGCTACCCCCCACCATCGCCAATGGAGATTTCATTAGCACCAACAGA
GAGAATTTTCACTATGGATCAGTGGTGACCTACCGCTGCAATCCTGGAAGCGGAGGGAGA

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AAGGTGTTTGAGCTTGTGGGTGAGCCCTCCATATACTGCACCAGCAATGACGATCAAGTG
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Fig. 10A
SEQ. ID NO:17
ATA TAC GAA TTC TGG TTG AGT CCA AAT ATG GTC CC

Fig. 10B
SEQ. ID NO:18
ACA GTG AGA TCT TTA TCA TTT ACC CGG AGA CAG GGA G

Fig. 11A
SEQ. ID NO:19

								M	T	V	A	R	P	S	V	P	A	A	L	P
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D	C	G	L	P	P	D	V	P	N	A	Q	P	A	L	E	G	R	T	S	F
P	E	D	T	V	I	T	Y	K	C	E	E	S	F	V	K	I	P	G	E	K
D	S	V	I	C	L	K	G	S	Q	W	S	D	I	E	E	F	C	N	R	S
C	E	V	P	T	R	L	N	S	A	S	L	K	Q	P	Y	I	T	Q	N	Y
F	P	V	G	T	V	V	E	Y	E	C	R	P	G	Y	R	R	E	P	S	L
S	P	K	L	T	C	L	Q	N	L	K	W	S	T	A	V	E	F	C	K	K
K	S	C	P	N	P	G	E	I	R	N	G	Q	I	D	V	P	G	G	I	L
F	G	A	T	I	S	F	S	C	N	T	G	Y	K	L	F	G	S	T	S	S
F	C	L	I	S	G	S	S	V	Q	W	S	D	P	L	P	E	C	R	E	I
Y	C	P	A	P	P	Q	I	D	N	G	I	I	Q	G	E	R	D	H	Y	G
Y	R	Q	S	V	T	Y	A	C	N	K	G	F	T	M	I	G	E	H	S	I
Y	C	T	V	N	N	D	E	G	E	W	S	G	P	P	P	E	C			
S	S	P	N	K	C	T	P	P	N	V	E	N	G	I	L	V	S	D	N	

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R S L F S L N E V V E F R C Q P G F V M
K G P R R V K C Q A L N K W E P E L P S
C S R V C Q P P P D V L H A E R T Q R D
K D N F S P G Q E V F Y S C E P G Y D L
R G A A S M R C T P Q G D W S P A A P T
C E V K S C D D F M G Q L L N G R V L F
P V N L Q L G A K V D F V C D E G F Q L
K G S S A S Y C V L A G M E S L W N S S
V P V C E Q I F C P S P P V I P N G R H
T G K P L E V F P F G K A V N Y T C D P
H P D R G T S F D L I G E S T I R C T S
D P Q G N G V W S S P A P R C G I L
V E S K Y G P P C P S C P A P E F L
G G P S V F L F P P K P K D T L M I S R
T P E V T C V V V D V S Q E D P E V Q F
N W Y V D G V E V H N A K T K P R E E Q
F N S T Y R V V S V L T V L H Q D W L N
G K E Y K C K V S N K G L P S S I E K T
I S K A K G Q P R E P Q V Y T L P P S Q
E E M T K N Q V S L T C L V K G F Y P S
D I A V E W E S N G Q P E D N Y K T T P
P V L D S D G S F F L Y S R L T V D K S
R W Q E G N V F S C S V M H E A L H N H
Y T Q K S L S L S P G K

Fig. 11B
SEQ. ID NO:20

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CCCGAGGATACTGTAATAACGTACAAATGTGAAGAAAGCTTTGTGAAAATTCCTGGCGAGAAG
GACTCAGTGATCTGCCTTAAGGGCAGTCAATGGTCAGATATTGAAGAGTTCTGCAATCGTAGC
TGCGAGGTGCCAACAAGGCTAAATTCTGCATCCCTCAAACAGCCTTATATCACTCAGAATTAT
TTTCCAGTCGGTACTGTTGTGGAATATGAGTGCCGTCCAGGTTACAGAAGAGAACCTTCTCTA
TCACCAAAACTAACTTGCCTTCAGAATTTAAAATGGTCCACAGCAGTCGAATTTTGTAAAAAG
AAATCATGCCCTAATCCGGGAGAAATACGAAATGGTCAGATTGATGTACCAGGTGGCATATTA
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TATTGTCCAGCACCACCACAAATTGACAATGGAATAATTCAAGGGGAACGTGACCATTATGGA
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TATTGTACTGTGAATAATGATGAAGGAGAGTGGAGTGGCCCACCACCTGAATGC
TCGAGTCCTAACAAATGCACGCCTCCAAATGTGGAAAATGGAATATTGGTATCTGACAAC
AGAAGCTTATTTTCCTTAAATGAAGTTGTGGAGTTTAGGTGTCAGCCTGGCTTTGTCATG
AAAGGACCCCGCCGTGTGAAGTGCCAGGCCCTGAACAAATGGGAGCCGGAGCTACCAAGC
TGCTCCAGGGTATGTCAGCCACCTCCAGATGTCCTGCATGCTGAGCGTACCCAAAGGGAC
AAGGACAACTTTTCACCTGGGCAGGAAGTGTTCTACAGCTGTGAGCCCGGCTACGACCTC

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AGAGGGGCTGCGTCTATGCGCTGCACACCCCAGGGAGACTGGAGCCCTGCAGCCCCCACA
TGTGAAGTGAAATCCTGTGATGACTTCATGGGCCAACTTCTTAATGGCCGTGTGCTATTT
CCAGTAAATCTCCAGCTTGGAGCAAAAGTGGATTTTGTTTGTGATGAAGGATTTCAATTA
AAAGGCAGCTCTGCTAGTTACTGTGTCTTGGCTGGAATGGAAAGCCTTTGGAATAGCAGT
GTTCCAGTGTGTGAACAAATCTTTTGTCCAAGTCCTCCAGTTATTCCTAATGGGAGACAC
ACAGGAAAACCTCTGGAAGTCTTTCCCTTTGGAAAAGCAGTAAATTACACATGCGACCCC
CACCCAGACAGAGGGACGAGCTTCGACCTCATTGGAGAGAGCACCATCCGCTGCACAAGT
GACCCTCAAGGGAATGGGGTTTGGAGCAGCCCTGCCCCTCGCTGTGGAATTCTG
GTTGAGTCCAAATATGGTCCCCCATGCCCATCATGCCCAGCACCTGAGTTCCTG
GGGGGACCATCAGTCTTCCTGTTCCCCCCAAAACCCAAGGACACTCTCATGATCTCCCGG
ACCCCTGAGGTCACGTGCGTGGTGGTGGACGTGAGCCAGGAAGACCCCGAGGTCCAGTTC
AACTGGTACGTGGATGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAG
TTCAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAAC
GGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGGCCTCCCGTCCTCCATCGAGAAAACC
ATCTCCAAAGCCAAAGGGCAGCCCCGAGAGCCACAGGTGTACACCCTGCCCCCATCCCAG
GAGGAGATGACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCCAGC
GACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGGACAACTACAAGACCACGCCT
CCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAGGCTAACCGTGGACAAGAGC
AGGTGGCAGGAGGGGAATGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCAC
TACACACAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGATAAAGATCT

Fig. 12A
SEQ. ID NO:21
ATA TAC GAA TTC TGG GTC ACT GTG AGG AGC CAC CAA CAT TTG AAG C

Fig. 12B
SEQ. ID NO:22
ACA GTG AGA TCT TTA GTG ATG GTG ATG GTG ATG CGA CAC TTT AAG ACA CTT TGG AAC

Fig. 13A
SEQ. ID NO:23

M	T	V	A	R	P	S	V	P	A	A	L	P								
L	L	G	E	L	P	R	L	L	L	L	V	L	L	C	L	P	A	V	W	G
D	C	G	L	P	P	D	V	P	N	A	Q	P	A	L	E	G	R	T	S	F
P	E	D	T	V	I	T	Y	K	C	E	E	S	F	V	K	I	P	G	E	K
D	S	V	I	C	L	K	G	S	Q	W	S	D	I	E	E	F	C	N	R	S
C	E	V	P	T	R	L	N	S	A	S	L	K	Q	P	Y	I	T	Q	N	Y
F	P	V	G	T	V	V	E	Y	E	C	R	P	G	Y	R	R	E	P	S	L
S	P	K	L	T	C	L	Q	N	L	K	W	S	T	A	V	E	F	C	K	K
K	S	C	P	N	P	G	E	I	R	N	G	Q	I	D	V	P	G	G	I	L
F	G	A	T	I	S	F	S	C	N	T	G	Y	K	L	F	G	S	T	S	S
F	C	L	I	S	G	S	S	V	Q	W	S	D	P	L	P	E	C	R	E	I

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Y C P A P P Q I D N G I I Q G E R D H Y G
Y R Q S V T Y A C N K G F T M I G E H S I
Y C T V N N D E G E W S G P P P E C
S S P N K C T P P N V E N G I L V S D N
R S L F S L N E V V E F R C Q P G F V M
K G P R R V K C Q A L N K W E P E L P S
C S R V C Q P P P D V L H A E R T Q R D
K D N F S P G Q E V F Y S C E P G Y D L
R G A A S M R C T P Q G D W S P A A P T
C E V K S C D D F M G Q L L N G R V L F
P V N L Q L G A K V D F V C D E G F Q L
K G S S A S Y C V L A G M E S L W N S S
V P V C E Q I F C P S P P V I P N G R H
T G K P L E V F P F G K A V N Y T C D P
H P D R G T S F D L I G E S T I R C T S
D P Q G N G V W S S P A P R C G I L G H
C E E P P T F E A M E L I G K P K P Y Y
E I G E R V D Y K C K K G Y F Y I P P L
A T H T I C D R N H T W L P V S D D A C
Y R E T C P Y I R D P L N G Q A V P A N
G T Y E F G Y Q M H F I C N E G Y Y L I
G E E I L Y C E L K G S V A I W S G K P
P I C E K V L C T P P P K I K N G K H T
F S E V E V F E Y L D A V T Y S C D P A
P G P D P F S L I G E S T I Y C G D N S
V W S R A A P E C K V V K C R F P V V E
N G K Q I S G F G K K F Y Y K A T V M F
E C D K G F Y L D G S D T I V C D S N S
T W D P P V P K C L K V S H H H H H H

Fig. 13B

SEQ. ID NO:24

ATGACCGTCGCGCGGCCGAGCGTGCCCGCGGCGCTGCCC
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GACTGTGGCCTTCCCCCAGATGTACCTAATGCCCAGCCAGCTTTGGAAGGCCGTACAAGTTTT
CCCGAGGATACTGTAATAACGTACAAATGTGAAGAAAGCTTTGTGAAAATTCCTGGCGAGAAG
GACTCAGTGATCTGCCTTAAGGGCAGTCAATGGTCAGATATTGAAGAGTTCTGCAATCGTAGC
TGCGAGGTGCCAACAAGGCTAAATTCTGCATCCCTCAAACAGCCTTATATCACTCAGAATTAT
TTTCCAGTCGGTACTGTTGTGGAATATGAGTGCCGTCCAGGTTACAGAAGAGAACCTTCTCTA
TCACCAAAACTAACTTGCCTTCAGAATTTAAAATGGTCCACAGCAGTCGAATTTTGTAAAAAG
AAATCATGCCCTAATCCGGGAGAAATACGAAATGGTCAGATTGATGTACCAGGTGGCATATTA
TTTGGTGCAACCATCTCCTTCTCATGTAACACAGGGTACAAATTATTTGGCTCGACTTCTAGT
TTTTGTCTTATTTCAGGCAGCTCTGTCCAGTGGAGTGACCCGTTGCCAGAGTGCAGAGAAATT
TATTGTCCAGCACCACCACAAATTGACAATGGAATAATTCAAGGGGAACGTGACCATTATGGA
TATAGACAGTCTGTAACGTATGCATGTAATAAAGGATTCACCATGATTGGAGAGCACTCTATT
TATTGTACTGTGAATAATGATGAAGGAGAGTGGAGTGGCCCACCACCTGAATGC
TCGAGTCCTAACAAATGCACGCCTCCAAATGTGGAAAATGGAATATTGGTATCTGACAAC
AGAAGCTTATTTTCCTTAAATGAAGTTGTGGAGTTTAGGTGTCAGCCTGGCTTTGTCATG

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AAAGGACCCCGCCGTGTGAAGTGCCAGGCCCTGAACAAATGGGAGCCGGAGCTACCAAGC
TGCTCCAGGGTATGTCAGCCACCTCCAGATGTCCTGCATGCTGAGCGTACCCAAAGGGAC
AAGGACAACTTTTCACCTGGGCAGGAAGTGTTCTACAGCTGTGAGCCCGGCTACGACCTC
AGAGGGGCTGCGTCTATGCGCTGCACACCCCAGGGAGACTGGAGCCCTGCAGCCCCCACA
TGTGAAGTGAAATCCTGTGATGACTTCATGGGCCAACTTCTTAATGGCCGTGTGCTATTT
CCAGTAAATCTCCAGCTTGGAGCAAAAGTGGATTTTGTTTGTGATGAAGGATTTCAATTA
AAAGGCAGCTCTGCTAGTTACTGTGTCTTGGCTGGAATGGAAAGCCTTTGGAATAGCAGT
GTTCCAGTGTGTGAACAAATCTTTTGTCCAAGTCCTCCAGTTATTCCTAATGGGAGACAC
ACAGGAAAACCTCTGGAAGTCTTTCCCTTTGGAAAAGCAGTAAATTACACATGCGACCCC
CACCCAGACAGAGGGACGAGCTTCGACCTCATTGGAGAGAGCACCATCCGCTGCACAAGT
GACCCTCAAGGGAATGGGGTTTGGAGCAGCCCTGCCCCTCGCTGTGGAATTCTGGGTCAC
TGTGAGGAGCCACCAACATTTGAAGCTATGGAGCTCATTGGTAAACCAAAACCCTACTAT
GAGATTGGTGAACGAGTAGATTATAAGTGTAAAAAAGGATACTTCTATATACCTCCTCTT
GCCACCCATACTATTTGTGATCGGAATCATACATGGCTACCTGTCTCAGATGACGCCTGT
TATAGAGAAACATGTCCATATATACGGGATCCTTTAAATGGCCAAGCAGTCCCTGCAAAT
GGGACTTACGAGTTTGGTTATCAGATGCACTTTATTTGTAATGAGGGTTATTACTTAATT
GGTGAAGAAATTCTATATTGTGAACTTAAAGGATCAGTAGCAATTTGGAGCGGTAAGCCC
CCAATATGTGAAAAGGTTTTGTGTACACCACCTCCAAAAATAAAAAATGGAAAACACACC
TTTAGTGAAGTAGAAGTATTTGAGTATCTTGATGCAGTAACTTATAGTTGTGATCCTGCA
CCTGGACCAGATCCATTTTCACTTATTGGAGAGAGCACGATTTATTGTGGTGACAATTCA
GTGTGGAGTCGTGCTGCTCCAGAGTGTAAAGTGGTCAAATGTCGATTTCCAGTAGTCGAA
AATGGAAAACAGATATCAGGATTTGGAAAAAAATTTTACTACAAAGCAACAGTTATGTTT
GAATGCGATAAGGGTTTTTACCTCGATGGCAGCGACACAATTGTCTGTGACAGTAACAGT
ACTTGGGATCCCCCAGTTCCAAAGTGTCTTAAA//GTGTCG//CATCACCATCACCATCAC
TAAAGATCT

WESTERN BLOT OF HYBRID PROTEINS DAF-IgG4, DAF-CR1BB, and DAF-CR1B

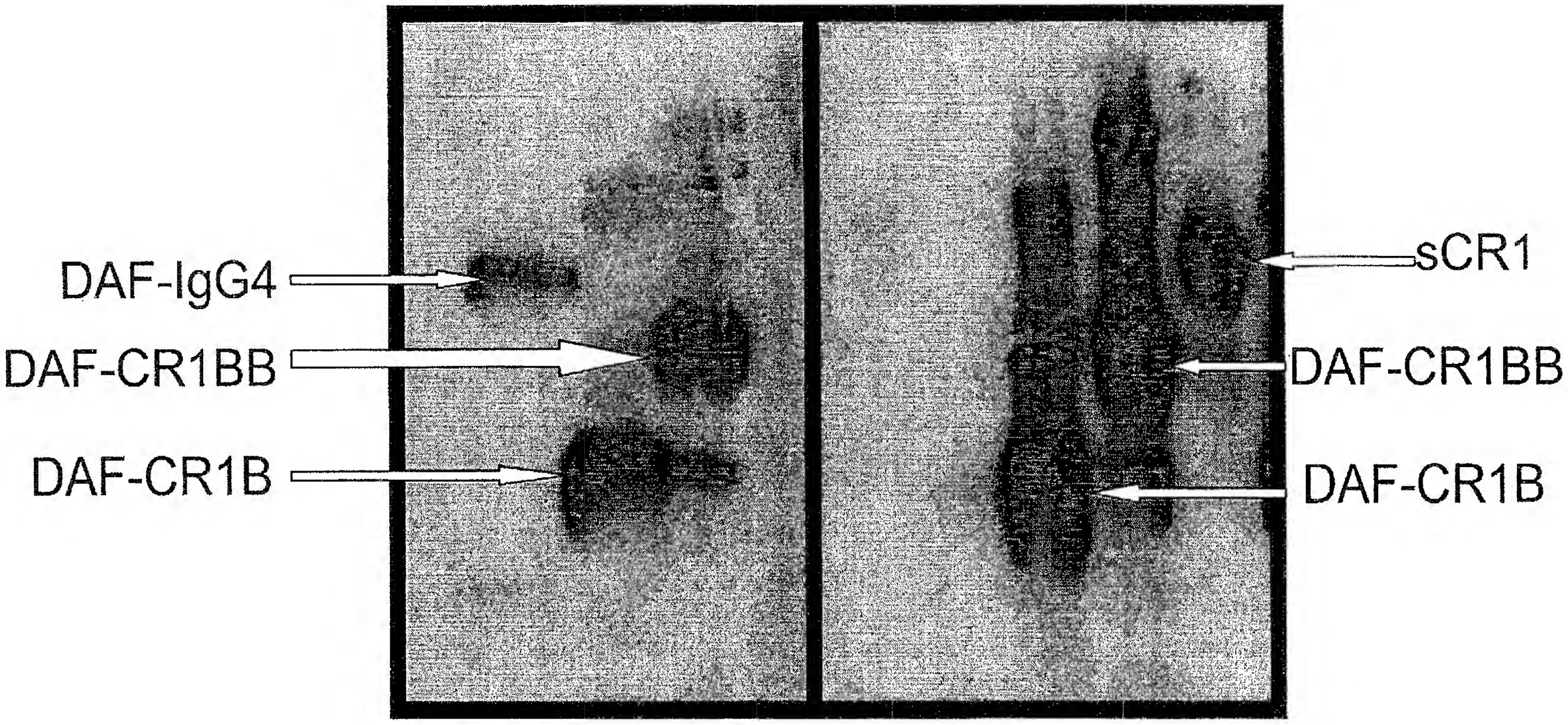

Fig. 14

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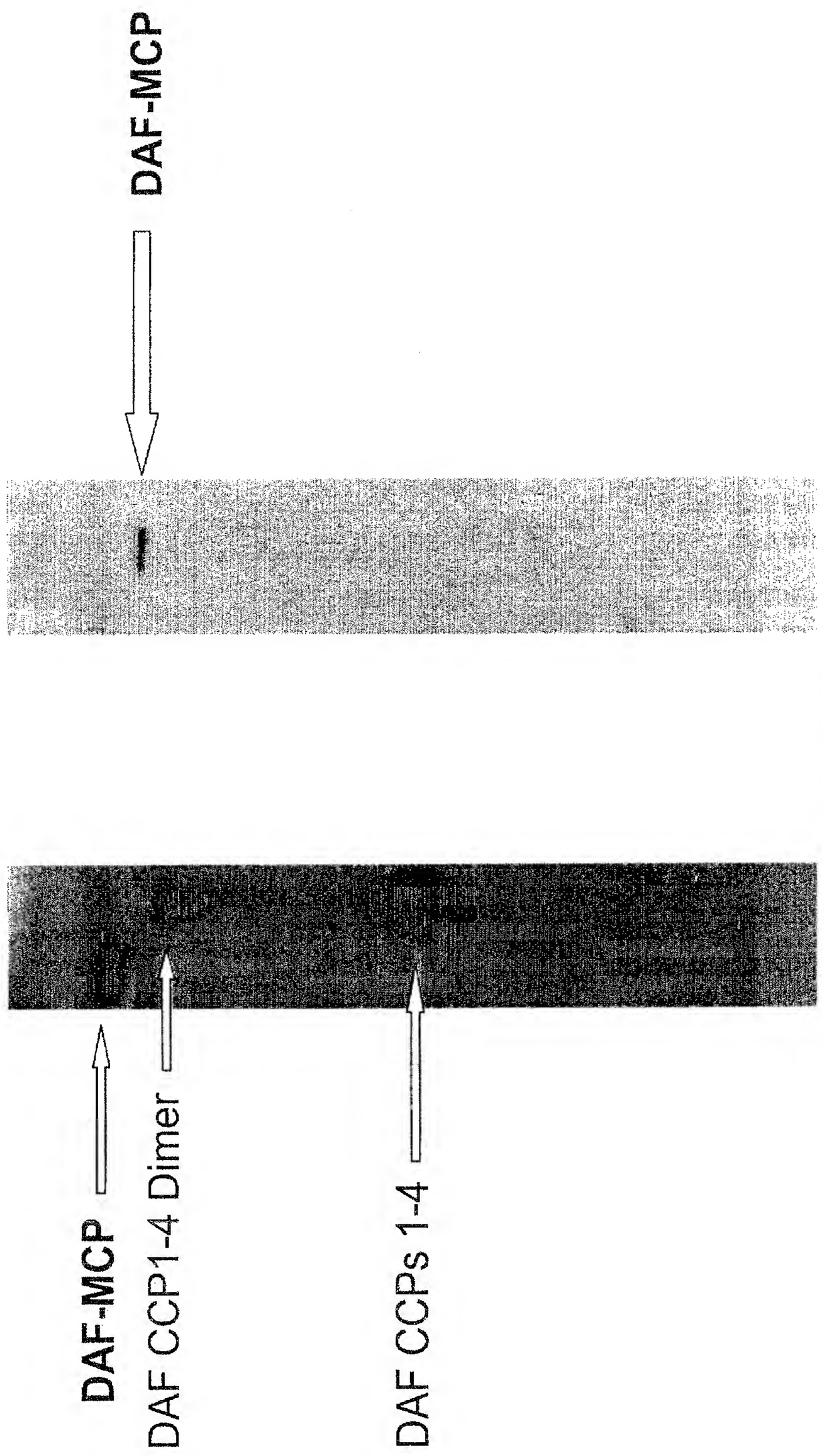
Western Blot of DAF-MCP
Anti-DAF
IA10
Anti-MCP
GB24
DAF-MCP
DAF CCP1-4 Dimer
DAF CCPs 1-4

Fig. 15

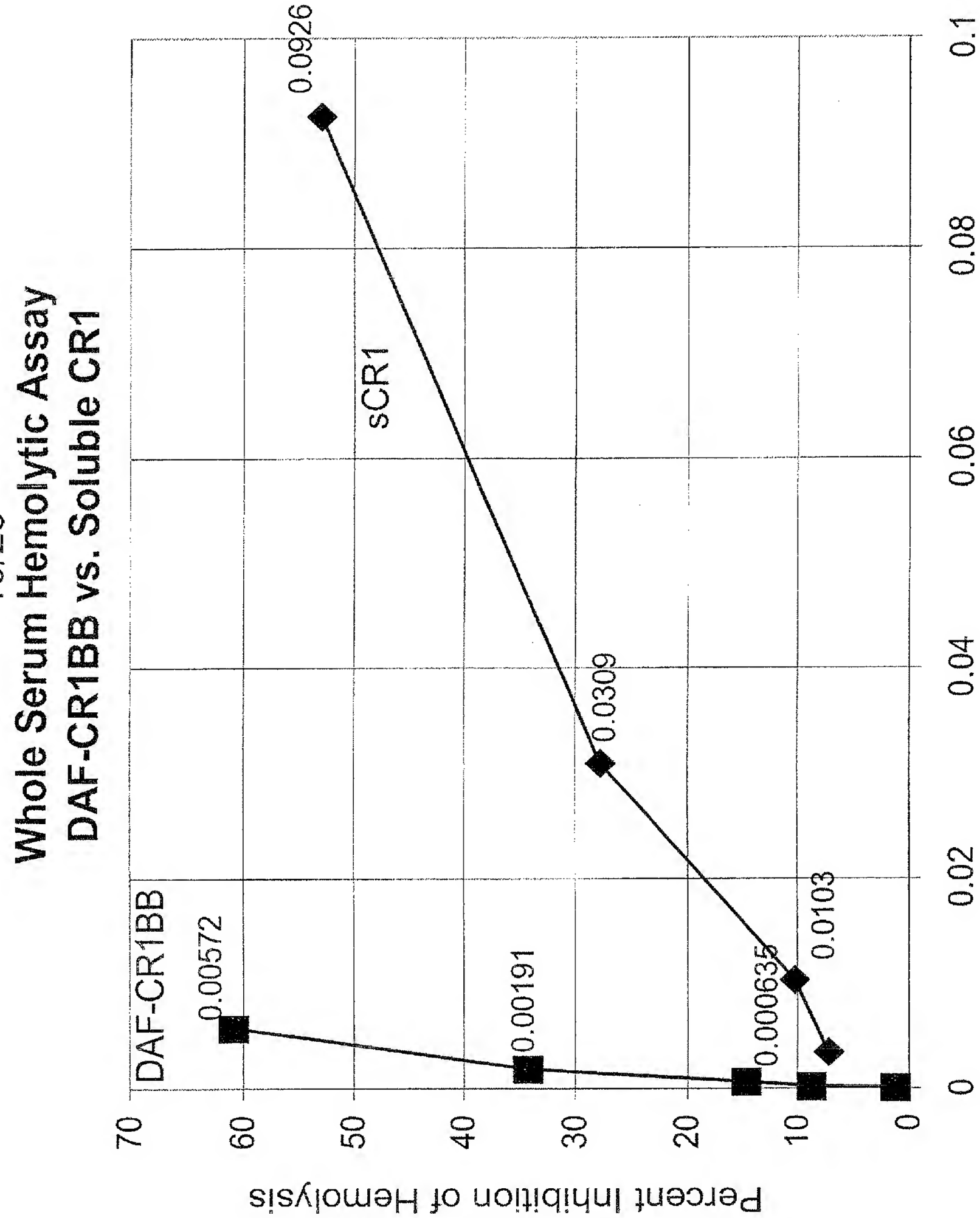
19/25
Whole Serum Hemolytic Assay
DAF-CR1BB vs. Soluble CR1
Percent Inhibition of Hemolysis
Regulator (nmol/L)
DAF-CR1BB
sCR1
0.00572
0.00191
0.000635
0.0103
0.0309
0.0926
70
60
50
40
30
20
10
0
0
0.02
0.04
0.06
0.08
0.1

Fig. 16

20/25

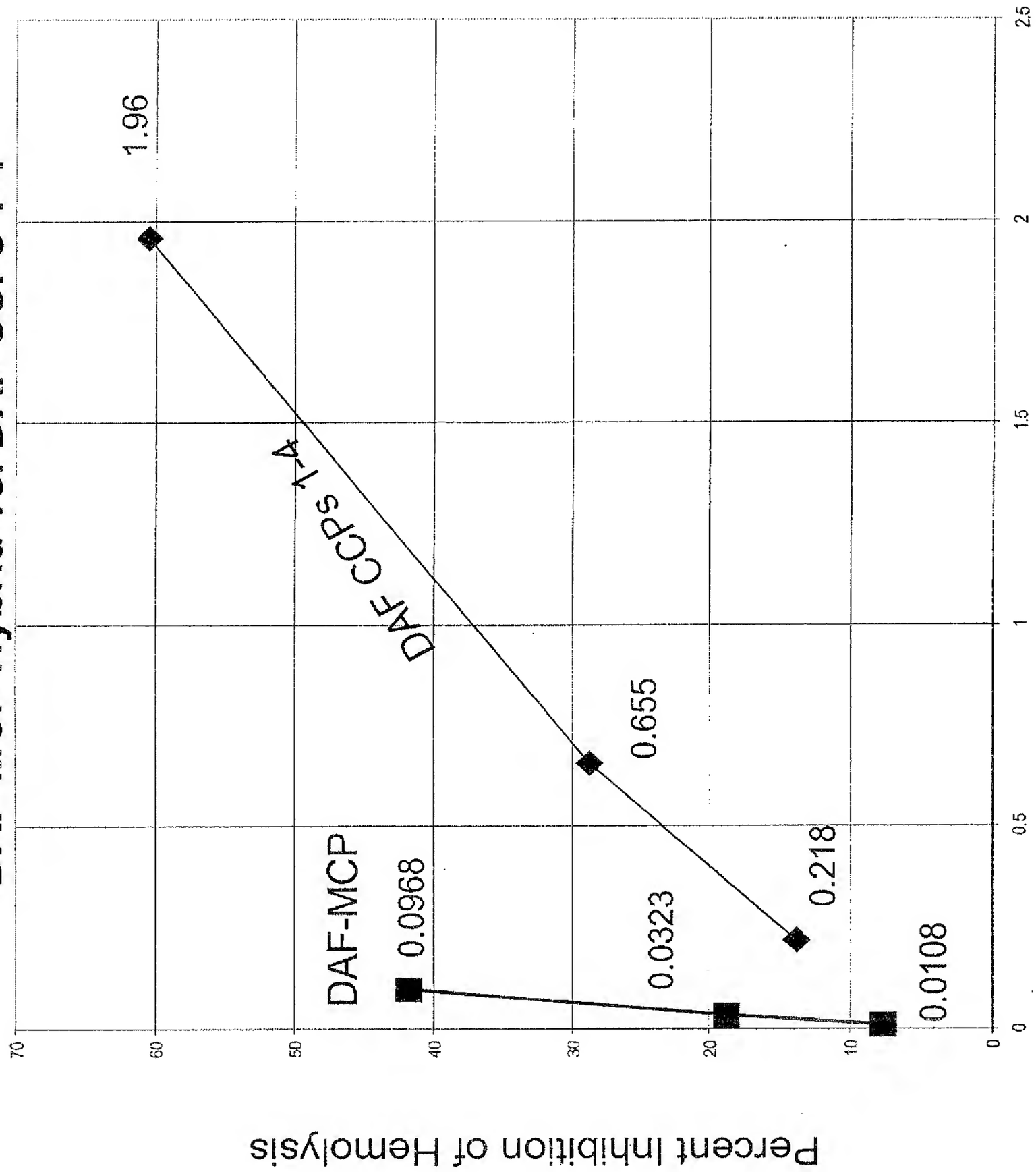
Whole Serum Hemolytic Assay
DAF-MCP Hybrid vs. DAF CCPs 1-4
DAF CCPs 1-4
DAF-MCP
1.96
0.655
0.218
0.0968
0.0323
0.0108
Regulator (nmol/L)
Percent Inhibition of Hemolysis
0
10
20
30
40
50
60
70
0
0.5
1
1.5
2
2.5

Fig. 17

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Classical Pathway C3 Convertase Decay

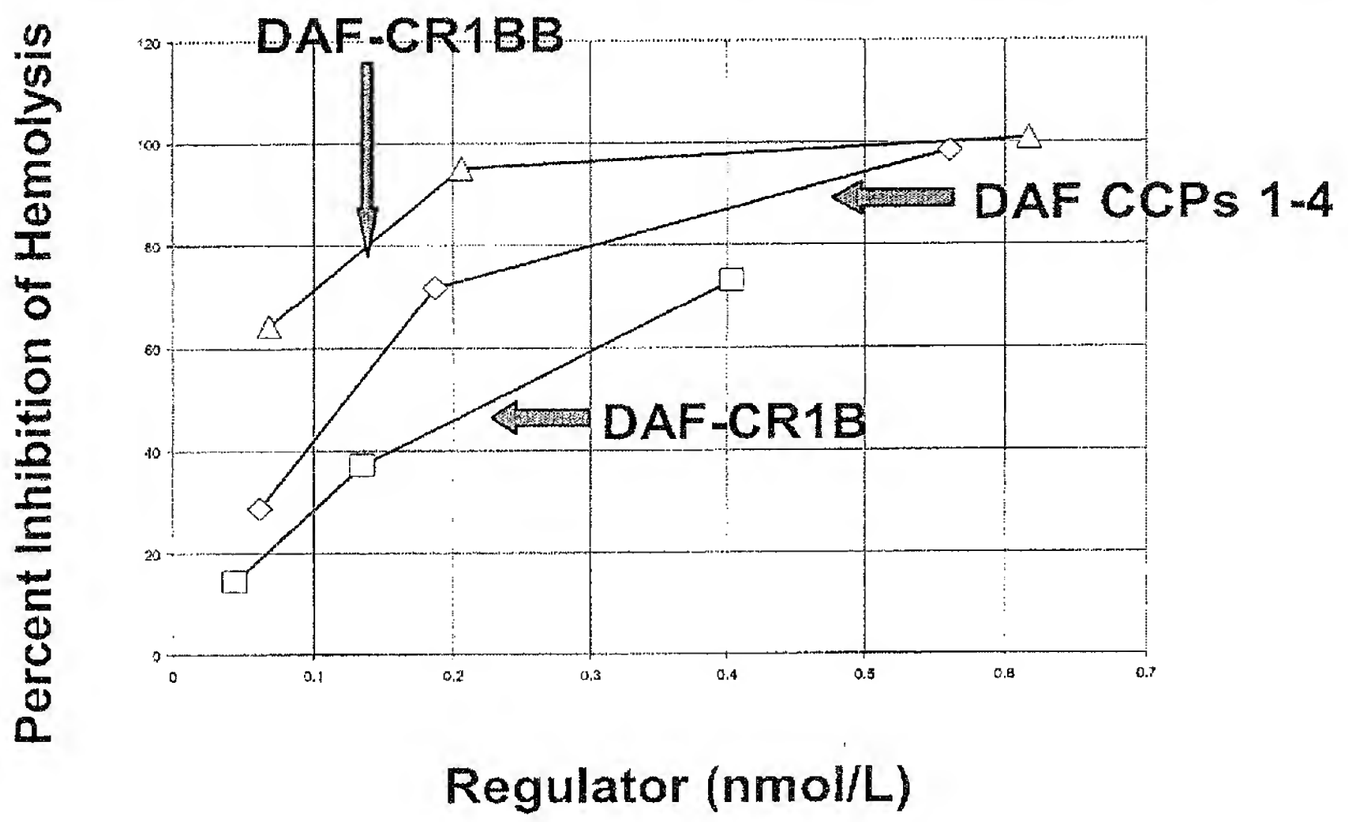

Fig. 18A

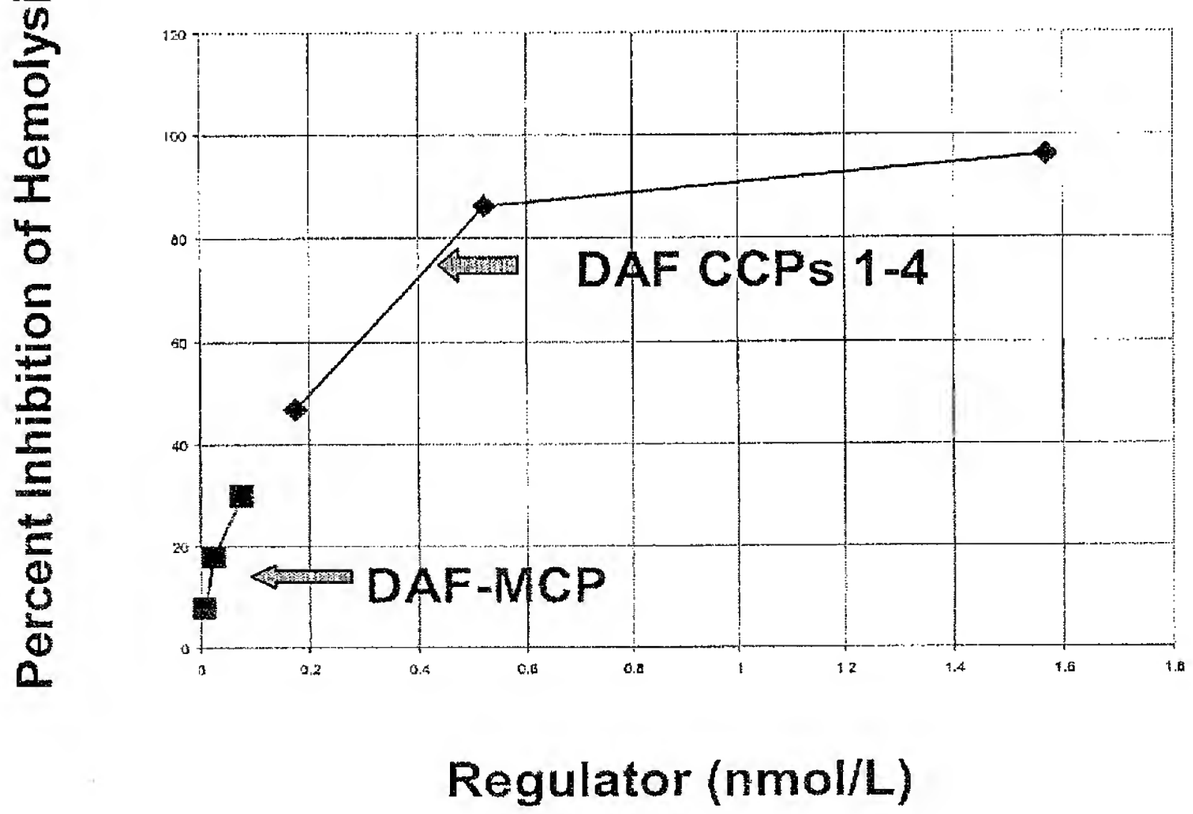

Fig. 18B

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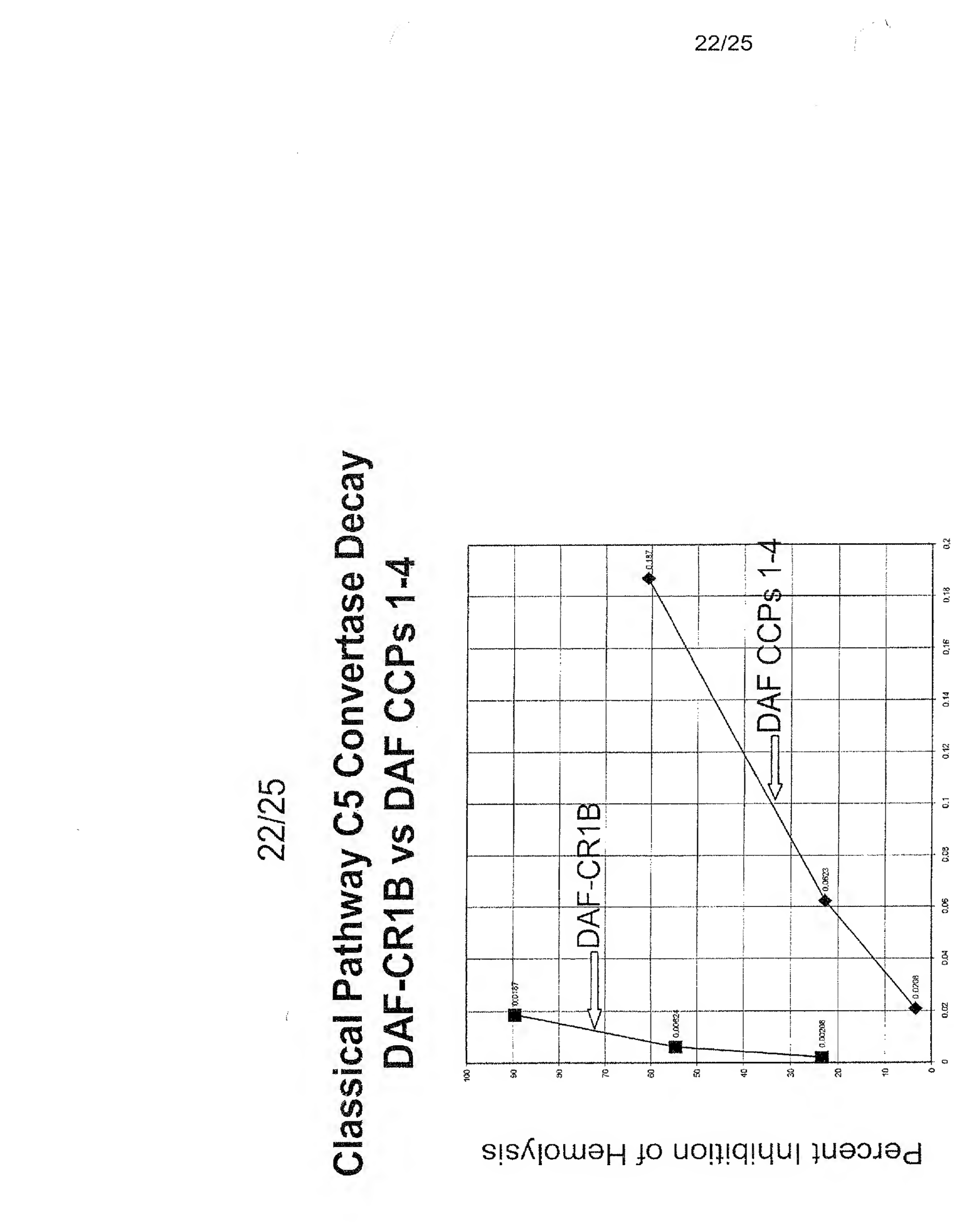

Classical Pathway C5 Convertase D
DAF-CR1B vs DAF CCPs 1-4
Percent Inhibition of Hemolysis
DAF-CR1B
DAF CCPs 1-4
0.187
0.0623
0.0208
0.00624
0.00187
0
10
20
30
40
50
60
70
80
90
100
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
0.2
Regulator (nmol/L)

Fig. 19

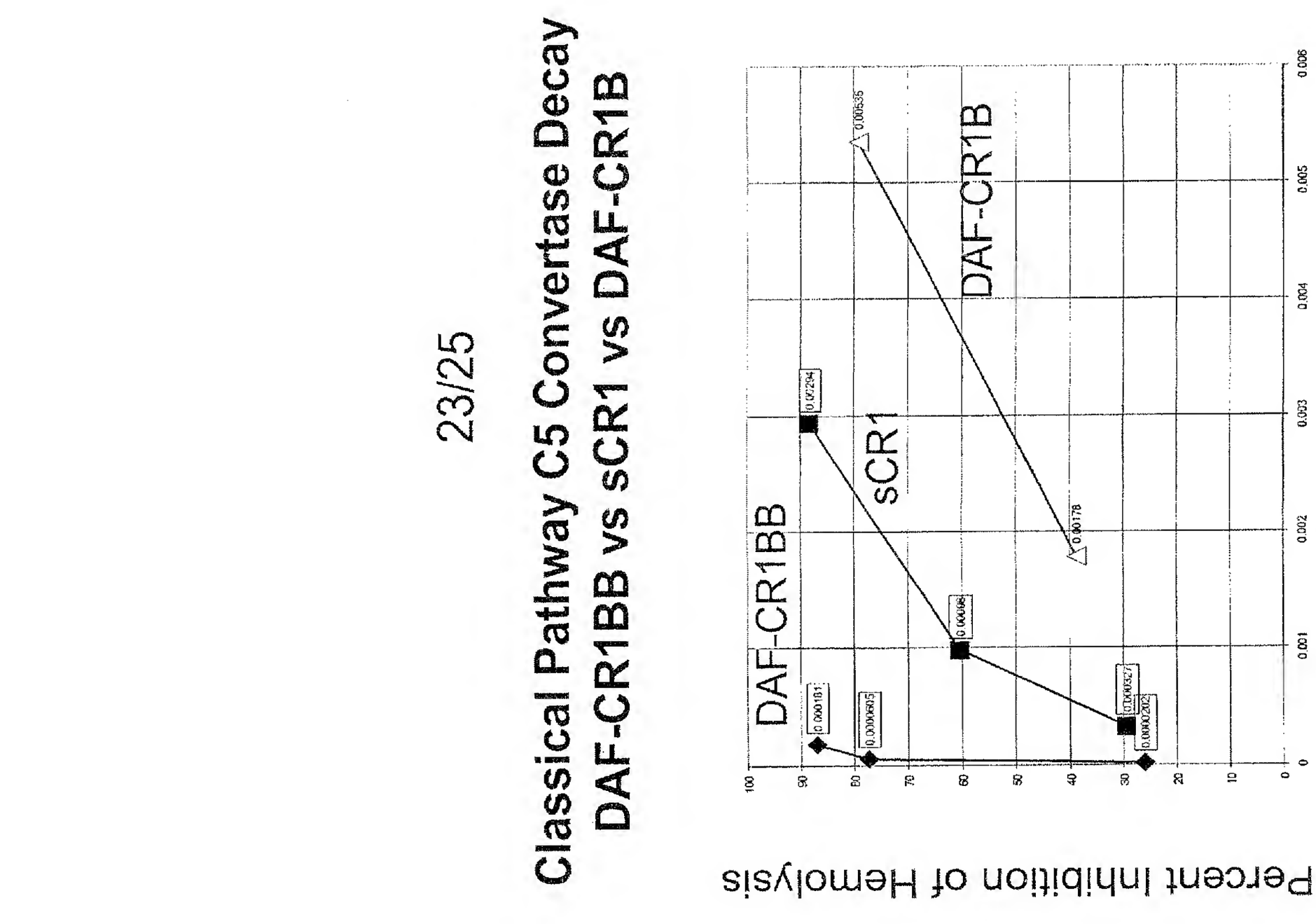
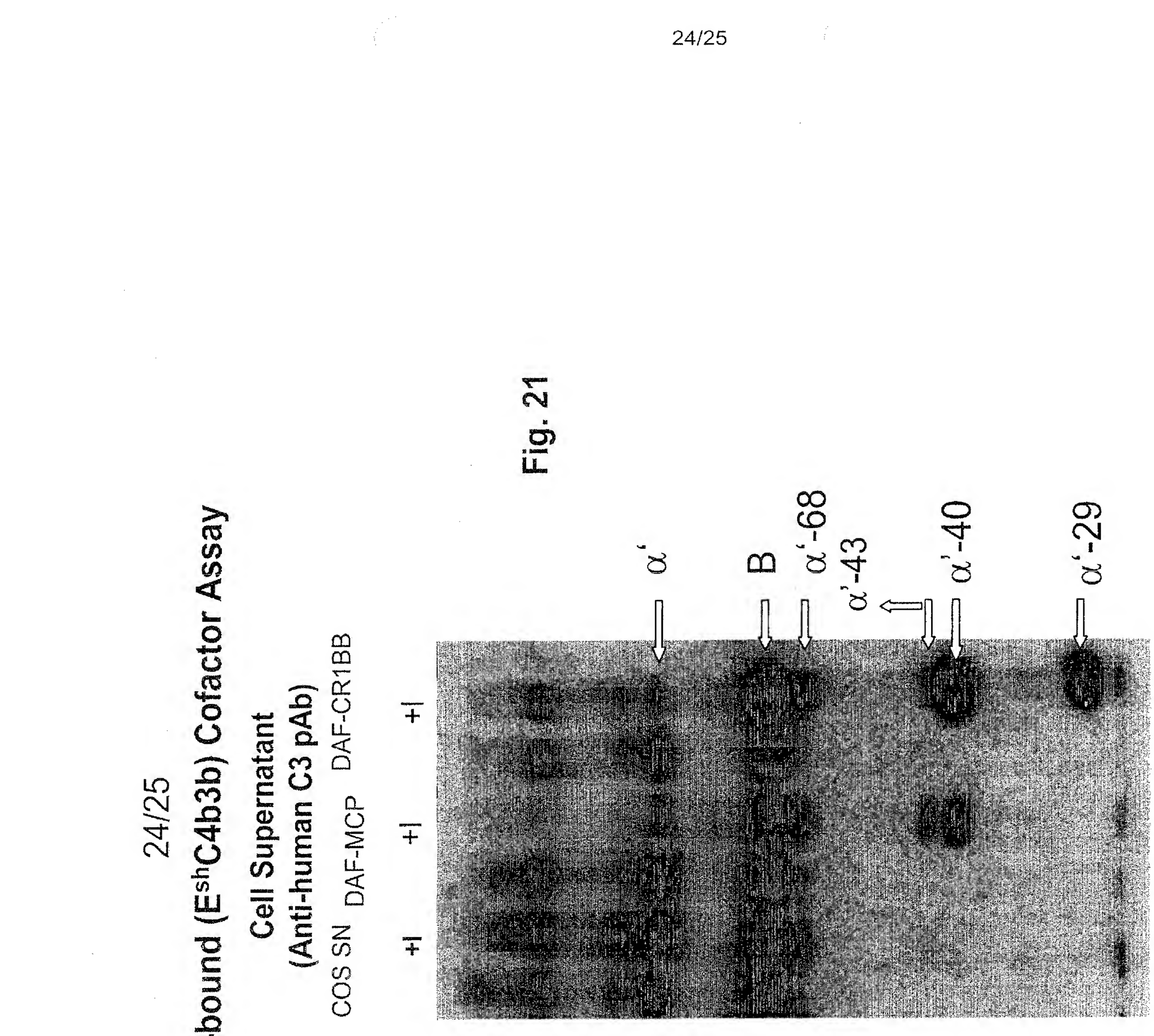

Classical Pathway C5 Convertase Decay
DAF-CR1BB vs sCR1 vs DAF-CR1B
DAF-CR1BB
sCR1
DAF-CR1B
0.000161
0.0000695
0.00294
0.00008
0.000535
0.00178
0.0000327
0.0000202
100
90
80
70
60
50
40
30
20
10
0
0
0.001
0.002
0.003
0.004
0.005
0.006
Regulator (nmol/L)
Percent Inhibition of Hemolysis

Fig. 20

Fig. 21


24/25
Cell-bound (E^shC4b3b) Cofactor Assay
Cell Supernatant
(Anti-human C3 pAb)
COS SN
DAF-MCP
DAF-CR1BB
+I
+I
+I
α'
B
α'-68
α'-43
α'-40
α'-29

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Cell-bound (EshC4b3b) Cofactor Assay
Cell Supernatant

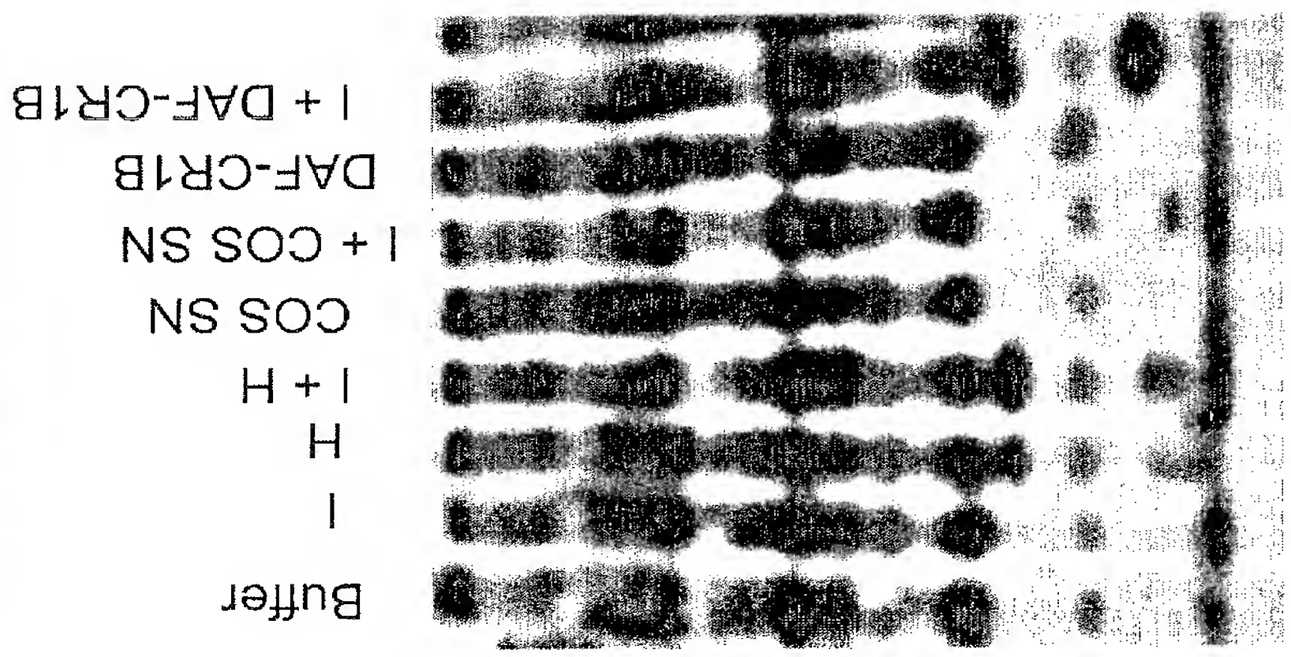

Fig. 22